

REMARKS

Reconsideration and allowance of this subject application are requested.

The drawings stand objected to as failing to comply with 37 C.F.R. §1.84 with the Examiner requires that descriptive labels be added to the function docks in Figure 1. A proposed drawing correction submitting functional labels for the blocks in Figure 1 is attached. Approval of the drawing correction is respectfully requested.

The Examiner requires that an Abstract be provided on a separate sheet. One is provided with this Amendment. Withdrawal of the specification objection is respectfully requested.

Claims 10-12 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent 5,821,859 to Schrott et al. in view of U.S. Patent 6,144,300 to Dames. This rejection is respectfully traversed.

According to the Examiner, Schrott discloses magnetic elements made from a amorphous wires. The Examiner contends that Schrott's magnetic elements are arranged at predetermined angles to each other, pointing to Figure 6A and column 6, lines 37-65 in support. Schrott discloses a single anti-theft tag 680 with a single magnetic wire 101 (column 6, line 41). This single wire 101 is used as a reference wire for measuring a linear array of magnetic elements consisting of parallel magnetic wires 201 that comprise a magnetic code. The parallel magnetic wires 201 are used to determine an identity of the magnetic array. Similar to binary, bar code-like coding, the magnetic elements 201 are arranged in parallel to each other and are evenly spaced apart. Schrott fails to

disclose that these magnetic elements 201 "are arranged at different predetermined angular positions" as recited in claim 10. In contrast, all Schrott's magnetic elements 201 are arranged with the same angular position—they are parallel to each other.

The Examiner further contends that Schrott teaches at least one of the magnetic elements having a diameter different from the diameter of at least one other magnetic element of the tag, citing Figure 9, column 8, lines 45-67, and column 9, lines 1-32 in support. There are three Figure 9 figures: Figures 9A, 9B, and 9C. It is unclear which one the Examiner is relying on for support. The magnetic elements 801 in Figure 9A all appear to have the same diameter. The text at column 8, lines 45-67 does not relate to wire diameter, but rather to varying the magnitude of the magnetic field 811 with respect to the single wire 101. Column 9, lines 1-32 talks about varying the reluctance path by placing soft magnetic elements 801 "having different lengths or magnetic saturation values in proximity to Matteucci wire 101." Column 9, lines 4-5. Should the Examiner maintain that Schrott discloses different diameter magnetic elements, the Examiner is requested to explicitly quote the language in Schrott which teaches that the magnetic elements 801 have different diameters. The burden of proof rests with the Examiner to come forward with evidence that Schrott's wire diameters are different. *In re Piasecki*, 223 USPQ 785, 788 (Fed. Cir. 1984).

In addition to these deficiencies in Schrott noted above, the Examiner admits that Schrott further fails to disclose that "the lengths and diameters of the magnetic elements, and the angles between them, jointly form the identity of the tag." In an attempt to

remedy this latter deficiency, the Examiner turns to the Dames patent. Dames discloses a linear array of magnetic elements in which the "linear spacing between adjacent magnetically active regions" can be used to generate part of a tag's identity—much like an optical bar code. See column 3, lines 24-32.

The Examiner contends that Dames discloses that the lengths and diameters of the magnetic elements and the angles between them jointly form the identity of the tag, relying on column 8, lines 13-34. Although the size of Dames' tag may depend on its length, the identity of the tag does not depend upon the length of the individual magnetic elements. Dames states that the "size of a simple linear tag is dependent on the length of the individual elements, their spacing and the number of data bits required." Column 8, lines 13-15. This passage merely discloses the scalability of Dames' tag, a useful feature because Dames wants to have the smallest tag possible, e.g., for insertion to the human body. But Dames does not teach (1) that the magnetic elements in a single linear array may have different lengths, or (2) that different length magnetic elements in the same array may be used to identify the tag.

Thus, even if the combination of Schrott and Dames could be made, (for purposes of argument only), that combination still fails to disclose multiple features of independent claim 10. Neither reference discloses that the magnetic elements of the tag are "arranged at different predetermined angular positions." Rather, both references teach magnetic elements arranged at the same angular position. Neither reference discloses the magnetic elements having different diameters. Neither reference teaches the different lengths,

different diameters, and different angular positions of the magnetic elements jointly forming the identity of the tag.

The Examiner also fails to provide the required teaching or suggestion from the prior art that would motivate combining Dames and Schrott. The Examiner simply says that "doing so detect [sic] accurately the presence of the tag for economical and security purposes." This is not a motivation to specifically combine the teachings of Schrott and Dames as proposed by the Examiner. Nor does it come from the prior art. It certainly is not obvious to combine the parallel arrays taught by Schrott and Dames and some how arrive at an angular array of magnetic elements.

Regarding dependent claim 11, 90 microns corresponds to 900 micrometers, which is outside the range of 10 to 100 micrometers set forth in dependent claim 11.

Claims 13-16 stand rejected under 35 U.S.C. §103 as being unpatentable over Schrott in view of Dames and further in view of Tyren (WO 97/29464). This rejection is respectfully traversed.

The Examiner fails to show how Tyren overcomes the multiple deficiencies present in the Schrott-Dames combination with respect to the independent claim 10. Accordingly, this rejection should be withdrawn.

Claims 17 stands rejected under 35 U.S.C. §103 as being unpatentable over Schrott in view of Dames. This rejection is respectfully traversed.

The Examiner makes a broad-brush rejection of claim 17 and simply refers to Figure 9, predominantly, with some reference to Figures 6 and 2. Again, Figure 9

discloses three figures, and Applicant assumes the Examiner is relying on Figure 9A. Figure 6 includes Figure 6A, 6B, and 6C. Applicant assumes the Examiner is relying upon Figure 6A.

Figures 2, 6A, and 9A all show a linear array of evenly-spaced, parallel magnetic elements. Accordingly, Schrott fails to disclose "providing a second set of diameters for magnetic elements, wherein at least one magnetic element is provided with a diameter that is different from the diameter of at least one other magnetic element of the tag." Schrott also fails to disclose "providing a fourth set of different angular positions for magnetic elements." The diameter and angular positions of the magnetic elements shown in these Figures in Schrott are all the same.

Schrott also fails to disclose, as explicitly admitted by the Examiner, "arranging in said tag, for each word in said identity code, a magnetic element of the type corresponding to the value of the word, at one angular position among said forth set of different angular positions." The Examiner relies upon the same text in column 8 of Dames previously relied on. As already described above with respect to claim 10, this text in Dames is irrelevant to the claimed feature, and merely describes how to reduce the tag size by minimizing the length of the elements in the array. Nevertheless, all of the elements in that array have the same length. In addition to the combination in Schrott and Dames not teaching all of the features of independent claim 17, there is no motivation to make that combination for the reasons set forth with respect to claim 10.

Claim 18 stands rejected under 35 U.S.C. §103 is being unpatentable over Dames in view of Tyren. This rejection is respectfully traversed.

The combination of Dames and Tyren fails to teach the claimed tag which includes "a plurality of magnetic elements arranged at different angular positions, each magnetic element having a length and a diameter, where the lengths, diameters, and angular positions of the magnetic elements define an identity of the tag." The Examiner generically refers to Figure 9, which includes four figures: 9A, 9B, 9C, and 9D.

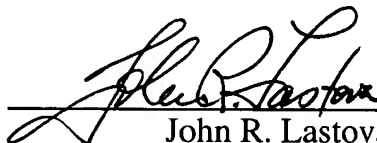
Elements in each set 102-106, 122-126, are 134-138 are all the same size. All of these elements appear to be two dimensional and therefore do not even have diameters. And their angular positions are all the same.

The Examiner fails to point out how Tyren remedies these fundamental deficiencies in Dames, especially since Tyren only detects only the presence of a certain single element tag. The Examiner's rationale for combining the teachings of Tyren into Dames is deficient because it lacks a teaching from either reference or the prior art which would have motivated a person to make the actual combination. Instead, the Examiner simply repeats the same generic sentence used to attempt to justify the combination of Schrott and Dames: "doing so would detect accurately the presence of the tag for economical and security purposes." No evidence from the prior art is identified or supplied by the Examiner which motivates this particular combination proposed by the Examiner.

All objections and rejections have been overcome by this response. The application is now in condition for allowance.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 
John R. Lastova
Reg. No. 33,149

JRL:at
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100